

What Is Claimed Is:

- 1 1. A system for performing a medical procedure, comprising:
2 a positioning system, said positioning system including:
3 an imaging device;
4 a video processor coupled to said imaging device;
5 a computer coupled to said video processor; and
6 a video display coupled to said computer; and
7 a resection device disposed within said positioning system.
- 1 2. The system of claim 1 wherein said imaging device includes a fluoroscope
2 and an x-ray imaging sensor.
- 1 3. The system of claim 2 wherein said resection device includes a distal tip
2 and wherein said distal tip is radiopaque.
- 1 4. The system of claim 1 wherein said computer defines tissue margins
2 around a lesion.
- 1 5. The system of claim 4 wherein said tissue margins are displayed on said
2 video display.
- 1 6. The system of claim 4 wherein said positioning system monitors a
2 position of said resection device.
- 1 7. The system of claim 6 wherein said computer is coupled to said resection
2 device and wherein said resection device is controlled by said computer based on said
3 tissue margins and said position of said resection device.
- 1 8. The system of claim 7 wherein said computer controls said resection
2 device by disabling said resection device if said resection device is positioned outside of
3 said tissue margins.

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1 9. The system of claim 6 further comprising an alarm device coupled to said
2 computer and wherein said computer transmits an alarm signal to said alarm device if
3 said resection device is positioned outside of said tissue margins.

1 10. The system of claim 9 wherein said alarm signal generates an audible
2 alarm on said alarm device.

1 11. The system of claim 9 wherein said alarm signal generates a visual alarm
2 and wherein said visual alarm is displayed on said video display, said alarm device
3 coupled to said video display.

1 12. The system of claim 4 wherein said imaging device includes a fluoroscope
2 and an x-ray imaging sensor and wherein said computer is coupled to said fluoroscope
3 and wherein said fluoroscope is controlled by said computer.

1 13. The system of claim 12 wherein said fluoroscope is controlled by said
2 computer by altering an x-ray dosage applied by said fluoroscope.

1 14. The system of claim 12 wherein said fluoroscope is controlled by said
2 computer by changing a physical position of said fluoroscope.

1 15. The system of claim 1 wherein said imaging device is a magnetic
2 resonance imager.

1 16. The system of claim 4 wherein said computer defines said tissue margins
2 by utilizing an absolute measure of tissue.

1 17. The system of claim 4 wherein said computer defines said tissue margins
2 by utilizing a percentage of a physical dimension of the lesion.

1 18. A method for performing a medical procedure, comprising the steps of:
2 creating an image of a lesion within a patient's body on an imaging device;

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3 processing data representative of the lesion image by a video processor from said
4 imaging device;
5 defining tissue margins around the lesion by a processor based on said processed
6 data representative of the lesion image; and
7 operating a resection device during a resection procedure within the patient's
8 body based upon said defined tissue margins.

1 19. The method of claim 18 wherein said step of creating an image of a lesion
2 within the patient's body on an imaging sensor includes the steps of:
3 applying a radiopaque die to the lesion;
4 absorbing the radiopaque die by the lesion;
5 generating x-rays with a fluoroscope; and
6 radiating the lesion with the x-rays.

1 20. The method of claim 19 wherein said step of applying a radiopaque die
2 to the lesion includes the step of intravenously administering the radiopaque die to the
3 lesion.

1 21. The method of claim 19 wherein said step of applying a radiopaque die
2 to the lesion includes the step of topically administering the radiopaque die to the lesion.

1 22. The method of claim 18 further comprising the step of displaying said
2 tissue margins on a video display.

1 23. The method of claim 18 wherein said step of operating the resection
2 device during the resection procedure within the patient's body based upon said defined
3 tissue margins includes the step of disabling said resection device if said resection device
4 is positioned outside of said tissue margins.

1 24. The method of claim 18 wherein said step of operating the resection
2 device during the resection procedure within the patient's body based upon said defined
3 tissue margins includes the step of generating an alarm signal if said resection device is

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